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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,362

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Masanori Ueda

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7590

07/12/2006

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EXAMINER

ADDISON, KAREN B

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/812,362

Applicant(s)

UEDA ET AL.

Examiner

Karen B. Addison

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) <sup>1-23</sup>~~1-18~~ is/are pending in the application.
- 4a) Of the above claim(s) 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-11 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 5,13-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/26/06</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Claim 19-23 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/20/06.

***Allowable Subject Matter***

2. Claims 5,13-14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior art fails to show, a surface acoustic wave device having one of the first or second substrate comprising sapphire while the other comprise silicon. Prior art also fails to show, the surface acoustic wave device having a at least one filter circuit. Prior also fails to show, the electric circuit comprising an impedance matching circuit electrically connected to the surface acoustic wave chip. Wherein, the surface acoustic wave device comprises two filters connected to a common input/output terminal; and the electric circuit comprises an impedance matching circuit provided between the common input/output terminal and at least one of the two filters.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,6-10, and 15-16 is rejected under 35 U.S.C. 102(e) as being anticipated by Tomohiro(JP2001110946).

Tomohiro discloses a surface acoustic wave device in fig.1-8 comprising: a first substrate(1) a surface acoustic wave chip(6) attached to the first substrate; and a second substrate(8 cap ) that hermetically seals the surface acoustic wave chip, at least one of the first and second substrates comprising silicon(see abstract), the first and the second substrate having joining surfaces and electric circuit(2 and 3) being formed on the surface area of the first substrate other than the joining surfaces. Tomohiro also discloses, the surface acoustic wave chip having a first pad (7) and the first substrate has a second pad(5) electrically connected to the first pads; and the surface acoustic wave chip(6) is mounted on the first substrate so that the first pads face the second pads. Wherein, the surface acoustic wave chip has the first pad and the first substrate having a second set of pads electrically connected to the first pads; and the saw chip is mounted on the first substrate so that the first pads face the second pads. Tomohiro also disclose the first substrate of fig.1 having a plate shape and the second substrate having sidewalls that define a cavity housing the surface acoustic wave chip.

Tomohiro also disclose in fig. 8 and 9 the saw chip (33) having a back surface(34) attached to the second substrate(44) and the back surface is spaced apart from the

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second substrate(44). Wherein, the surface acoustic wave chip has a back surface attached to the second substrate and one of the first substrate (46 fig.9) has a cavity that houses the surface acoustic chip. Tomohiro also discloses the second substrate comprising silicon having a resistivity equal to or greater than 100 ohms.

Claims 1,11-12 and 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Kawahara(6518501).

Kawahara discloses a surface acoustic wave device in fig.2 and 11 comprising: a first substrate (1) a surface acoustic wave chip (2) attached to the first substrate; and a second substrate 5 (cap ) that hermetically seals the surface acoustic wave chip, at least one of the first and second substrates having a silicon adhesive layer(col.4 line43-51) and the first and the second substrate having joining surfaces. Wherein, the first and second substrate have respective cavities that house the surface acoustic chip and the first substrate has a plate shape (5) and the second substrate has sidewalls (1) that define a cavity housing the surface acoustic wave chip (2).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12 is rejected under 35 U.S.C. 102 as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kawahara.

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Kawahara substantially disclose the claimed invention. However Kawahara does not disclose the surface acoustic wave device as a filter.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does differentiate the claimed apparatus from a prior art apparatus stratifying the structural limitation. EX parte Masham, 2 USPQ2d 1647.

6. Claims 2-4 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Tomohiro in view of Ono (7034441).

Tomohiro substantially disclose the claim invention. However, Tomohiro dose not show, the joining surfaces made of metal comprising gold.

Ono discloses a surface acoustic wave device comprising: a first (1) and a second(3 cover) substrate made of silicon having external terminal made of gold metal for activating the first and second substrate. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the SAW device of Tomohiro with the teaching of Onon silicon substrate for the purpose of obtaining good vibration characteristic and improving the degree of freedom design.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen B. Addison whose telephone number is 571-272-2017. The examiner can normally be reached on 8:00 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KBA  
6/4/06

  
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